

IN REPLY

REFER TO: WLO-273-61

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DATE: 12 December 1961

TO: 

SUBJECT: Calibration Standards

References: (1) WLO-157-61 Calibration Standards,  
17 March 1961  
(2) Letter   
20 November 1961

Gentlemen:

Attached as Table I, is a list of instrumentation that will be used  by AFCS personnel and the calibration period for each. Also, attached as Table II, is a suggested list of equipment to perform meter calibration and repair

We have assumed that facilities for meter calibration and repair would be available . This has been considered in arriving at the quantity of instrumentation required.

Table II contains a list of equipment necessary to establish primary and secondary standards for AC/DC voltage and current, frequency, and phase angle. The list of equipment suggested by  has been reviewed and the additional equipment required has been noted.

If there is any question regarding this information, please feel free to call us or contact our local representatives.

 Project Engineer /

 Senior Account Administrator

RLD:d11

Attachments: Tables I and II

DOCUMENT NO. 83

NO CHANGES IN CLASS. U

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NEXT REVIEW DATE:

AUTH: HR 70-2

DATE: 100712 REVIEWER:

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Table I

<u>Quantity</u>	<u>Item</u>	<u>Calibration Required</u>
4	Multimeters (Simpson 260 or equivalent)	6 months
2	Oscilloscopes (Tektronix & Dumont) (3%)	3 months
1	Servoscope 1100D	3 months
2	VTVM Hewlett Packard 400H or equivalent (1%)	3 months
2	VTVM Hewlett Packard 412A or equivalent (1%)	3 months
1	Phase Angle Meter (North Atlantic) (2%)	3 months
1	Sanborn Recorder and Plug Ins (5%)	3 months
1	Theatstone Bridge	8 months
2	Variacs (Operational check only)	12 months
1	Rate Table (Operational check only)	6 months
1	Pressure Station (Cleaning and operational check only)	1 month
1	Frequency Meter 400~	6 months
1	North Atlantic Ratio Box 504	12 months
1	Tube Tester (Operational check only)	12 months

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Table II

## DC Voltage Calibration

Estimated Cost

1	Fluke	Model 406	DC Power	\$ 300
1	Rubicon	Model 2781	Potentiometer	700
1	Rubicon	Model 2797	Volt Box	235
1	Rubicon	Model 3111	Galvanometer	150
3	Rubicon	Model 2775	Standard Cells	100
			Storage Battery	36

## AC Voltage Calibration

1	Rubicon	Model 393	AC/DC Transfer Standard	650
1	Hewlett-Packard	Model 200CD	Wide Range Oscillator	200
1	McIntosh	Model 60	Modified Power Amplifier	275
**1	Sorenson*		Regulator	

## AC/DC Secondary Standard

1	Fluke	Model 803	Differential Voltmeter	900
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## Frequency Calibration

**1			(WWV) Communications Receiver	
1	Berkeley	Model 7370	Eput Meter	2,000

## Current Standards

**1ea.	ROSA NBS Type Standard Resistors 1 $\Omega$ , 10 $\Omega$ , 100 $\Omega$ , 1K $\Omega$		45 ea.
**1	REICHSANSTALT type Resistor 0.1 $\Omega$		100

## Phase Angle

**1	Low Dissipation .001 uf Capacitor	50
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\*Needed if AC power is not stable

\*\*Indicates equipment not contained in Reference #2.